

Warm Up # 1-3

Warm up sheets by the door.
Sit anywhere.

1. Fill in your **name** and **Week 1** at the top of the page, then in the Monday space take a minute to tell me if you have any concerns about this class.

2. In the Tuesday space on your warm up, write the definition for all the vocabulary words you know:

data	mean	parameter	discrete
datum	median	random	continuous
population	mode	bias	accurate
sample	statistic	census	precise

3. In the Wednesday space, make a list of the materials you need for this class:

Graphing Calculator	3-Ring Binder	Pencils
Graph Paper	Ruled Paper	Ruler (or ...)

Welcome to IB Math Studies!

Your course syllabus can be found online at:

[http://
nicholsonsehs.wikispaces.com/](http://nicholsonsehs.wikispaces.com/)

The primary purpose of this trimester is to learn the math associated with the IB Math Studies curriculum and prepare you for the ***IB Mathematical Studies SL*** exams given in **May 2016** (or in future years).

You will also prepare an IB Math project, called the *Internal Assessment*, that will contribute to your overall *IB Math Studies SL exam* scores.

Materials Required

✓ **Textbooks and Materials**

- *Mathematical Studies SL (Haese & Harris Publications)*
- *Handouts given in class*
- *Access to Google Docs*
- *IB Reference Sheets and Documents*

✓ **Graphing Calculator:** TI-83, TI-84, or a TI-Enspire with a TI-84 insert.

Not all graphing calculators are allowed on IB Exams, but the ones listed are.

Calculator apps on electronic devices can be used outside of class, not in class or on the IB exam.

All students in this course should also be scheduled into:

Math III in Trimester 2

College Now Algebra

and

Math II2 in Trimester 3

College Now Trigonometry

✓ **Notebook/Organization:** For each unit you will use a combination of notes you take and notes I provide. What probably works best is a three ring binder with 3 to 5 sections:

1. Current week classwork (Warm up, notes, activities and handouts)
2. Current unit homework.
3. IB Reference Sheets
4. Past units, past notes...

*You may need a separate folder to keep IB Project papers and work in.

There are 7 Main Topics in the IB Studies curriculum:

1. Numbers and Algebra
2. Descriptive Statistics
3. Logic, Sets and Probability
4. Geometry and Trigonometry
5. Statistical Applications
6. Mathematical Models
7. Basic Differential Calculus

First topic: Descriptive Statistics

A farmer investigated the effect of a new organic fertilizer on his crops of peas. He divided a small garden into two equal plots and planted peas in each. One plot was fertilized, the other not. Everything else was the same.



A random sample of 150 pods was harvested from each plot. The number of peas in each pod was counted.

Discuss these questions with your team:

- 1) Can you clearly and specifically state the problem the farmer is trying to solve?
- 2) How has the farmer tried to make a fair comparison?
- 3) How could the farmer make sure his selection is random?
- 4) What is the best way to organize the data?
- 5) Are there any abnormally high or low results and how should they be treated?
- 6) How can we best describe the typical pod size?
- 7) How can we best describe the spread or range of pod sizes?

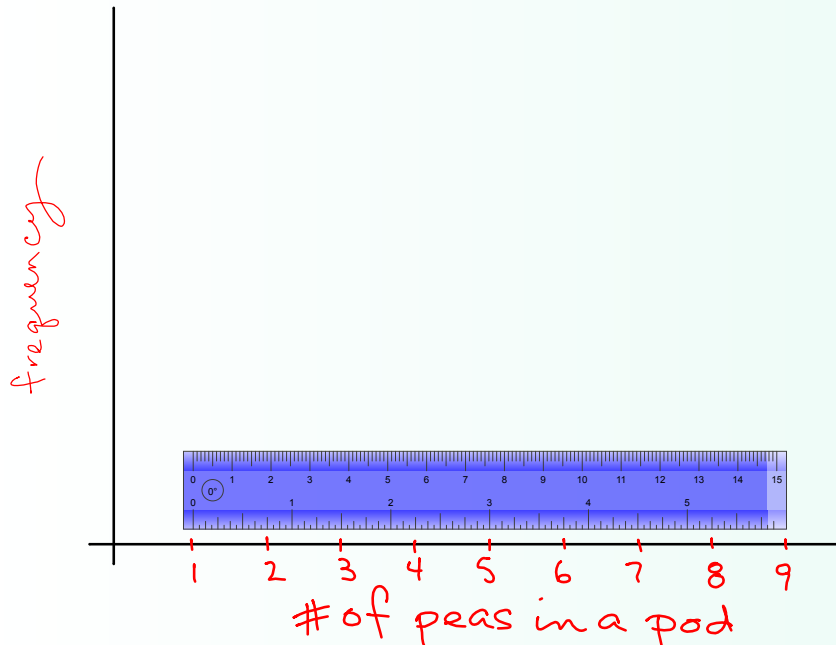
4 6 5 6 5 6 4 6 4 9 5 3 6 8 5 4 6 8 6 5 6 7 4 6 5
7 5 5 6 4 8 5 3 7 5 3 6 4 7 5 6 5 7 5 7 6 7 5 4 7
6 3 7 6 8 3 3 4 4 7 6 5 6 4 5 7 3 7 7 6 7 7 4 6 6
6 6 6 4 7 6 6 5 3 8 6 7 6 8 6 7 6 6 6 8 4 4 8 6 6
2 8 6 5 6 5 5 5 4 4 4 6 7 5 6 5 5 5 6 6 5 6 7 5 8
6 8 6 7 6 5 6 7 6 3 4 6 6 3 7 6 7 6 8 6 2 6 5 7 3

# of peas in a pod	Tally	Frequency	Relative frequency
1		0	<u>Frequency</u>
2		2	150
3	1	11	as a decimal
4			round to
5			3 places if
.			needed
.			
.			
↓			

Total :

Create a column graph (bar graph) to display the data.

Use a measuring scale to be as accurate as possible.



Find measures of central tendency:

Mean:

Median:

Mode:

What do these measures tell the farmer?

What conclusions can the farmer make at this point in his investigation?

HW 1-3: (Week 1, Day 3 is Wednesday)

Read p.159, do p.160,
Exercise 6A #1 & 2, parts a - g only

Go to my website, find the Stat Trek link under Class Resources. On the left side, click The basics. Read or watch the videos for Variables, Population vs sample, and Central Tendency.

Back to your book:

do p.164, 6B, #1, 3, 4

Refer to p.163 to describe the distribution.